

The Athenian Mercury:

Tuesday, April 25. 1693.

The three following Questions were design'd for Every Body's Mercury, but we were forc'd to postpone 'em to this, not having there room to insert 'em.

Quest. 1.

MY Parents dying in my Infancy, left me to the Care of Friends for my Education, which they have discharg'd indifferently well, but now I'm of Age, they grow weary of me, and I find I must look to my self. I'm yet not old nor ugly, if my Glafs or my Eyes don't deceive me, and have several Pretenders — The most eager a good honest Tradesman, who is well settled in the World, tho' I find not overstock'd with sence: Another a Sparkish Fellow, that says he's an Author, nay a Poet too, as I find to my Sorrow, for he generally pesters me once a day with some doleful Sonnet or other — These two by way of Matrimony; but there's a third more furious than both, a rich Old graceless piece of Quality, that whenever he sees me is ready to devour me, and promises me a considerable settlement if I'll consent to be his — I must speedily resolve upon one thing or other, and therefore desire your Advice as soon as possible?

Ans. — And thou shalt have it, poor Creature, and that as disinterested as if we Our selves were none of us Authors. To begin then, for Luck's sake, with your Scribbling Lover, We find, Madam, you write a very good Hand, and an indifferent Style, and may for these Reasons be a proper Help-meet for such a sort of a Mortal, which We tell you, that you may know the worst beforehand, and not be deceiv'd, for you must e'ne prepare to Authorize with him, because one poor Author, without something else to live upon, can never maintain a Family, unless he gets no other Children but Odes and Epigrams. For your old Letcher of Quality, who you fairly enough imply, tho' not plainly expresse it, wou'd so fain have you his, — speak out — WHORE, We hope there's no great need to Advise you against him — Look but upon the very Word, the glorious Title you must wear, and see how you like it, how proud you'd be if saluted by it, especially if Mr. Mob shou'd do you that Honour? And if even the Name be so little desirable, can the Thing it self be more? If you wou'd not then be that lost abandon'd thing which few of your Sex are very fond of being thought, much less nam'd, then see you keep clear of this lewd Old Spark, who'd so fain fall on without any Grace, and never sell your Soul and Body to the Devil, and this old Broker of his for a few years purchase: But if there be a necessity of your entering into the Noose, our sage Advice is clearly for the honest Tradesman, who'll maintain you answerably to his and your Quality, and if he han't perhaps as much Sence as some of his Neighbours, you'll not like that so ill after Marriage as you'd do before, since you'll find he'll make the more Obedient Husband — and so, well may ye do together.

Quest. 2. Why does the Moon appear so much bigger near the Horizon, than in her approach toward the Mid-Heaven?

Ans. 'Tis not the Moon only, but the Sun too, and all the other Planets and Stars which appear in this manner. The Reason generally given, is, That when in the Vertical Point they are seen without refraction, because by their direct Rays they then penetrate and dissipate the Vapours, which may be true of the Sun, but can't hold in the Moon, and other Stars and Planets, whose Rays having no heat, or none that's sensible, can never dissipate, tho' they may penetrate the Vapours underneath. The true Reason why all the Planets and Stars, nay

any other Light, appear thus larger when seen near the Earth, than when higher in the Air, is, we say from the larger Refraction, which any Object must have where 'tis seen thro' a thicker Medium; as is plain in a piece of Money seen thro' a Basin of Water, which not only appears higher than it wou'd without the Water, but looks larger and more glaring than when 'tis view'd only thro' an airy Medium: And the same thing the Divers experience, as any one may who'll but venture his Head under Water. To prove that 'tis nothing but this Refraction makes the difference, let any observe the rising or setting of the Sun, Moon, or any Star, and they'll find they appear not near so large when they set clear, as when the Air is thick with Vapours. Now when we look upon 'em in the Mid-heaven, even there too they appear larger in misty Weather than at other times, as may very frequently be observ'd of the Sun, especially here in London, and in Winter-time, when he has not strength enough to dissipate all the fuliginous matter that he draws from this great City: But be the Air how it will, the Planets must appear thro' more Vapours just at their Rise, than at other times, or when they are Vertical, because when Rising the Vapours that are then exhaling from the Surface of the Earth between the Light and our Eye, must needs seem much thicker, being seen side-ways, than those which only rise strait up where we stand, which is the Reason that we may often see a Mist at a distance, a few yards from us, but none just round about us, because we see more of the Mist, more Vapours one behind another, when we look at some distance, than when our Eye takes in a less Compass of Earth or Air. And to put this yet further beyond dispute, when the Moon appears thus large, order it so as to look upon it just over the edge of some Hill, very near your Eye, and it shan't then seem so large, because the Hill intercepts many of the refracted Rays, and suffers little more but the direct Species to be transmitted to your Eye, the case being then much the same as when 'tis Vertical.

Quest. 3. Why does the Moon appear red and large to the Naked Eye when near the Horizon, and little and pale when it approaches the Mid-heaven, and yet quite contrary when look'd upon thro' a Telescope, namely, small and white near the Horizon, and more large and reddish when remov'd farther from it?

Ans. Here are a great many Questions in one, to some of which We think We can return a reasonable Answer, others We doubt are too hard, and shall be well pleased if the Learned wou'd give us their Judgments upon 'em, not being asham'd to own, We are yet in the dark in many things relating to Refraction, which as Mr. Boyle himself acknowledges, is one of the most difficult parts of all Physicks.

Why the Moon looks larger near the Horizon when view'd by the Naked Eye, and less when in the Mid-Heaven, we have already accounted, and from that Answer We think may also be drawn a probable solution of the contrary Phenomenon, when 'tis view'd thro' a Telescope. It may appear smaller near the Horizon than it does to the naked Eye, for the same Reason that it does so to the naked Eye when look'd upon over the edge of a Hill near the Eye, or thro' any Tube, tho' without Glasses, because the Glafs takes in but a small part of the Earth, or Heaven, without most of those refracted Beams which strike the naked Eye: And besides, the Refraction must needs be broken and alter'd, by receiving a new sort of mould or turn in its passage through the Glasses. Now for the Redness of the Moon (and Sun and Stars too, as before) when view'd by the Naked Eye near the Horizon. Red is but a darker Yellow, as

Yellow seems a deeper *White*, *White* *Fassim* *Flowers*, when they *Wither*, turning *Yellow*, and then *Red*, and *Mad-*
der much the same — and so in *Light* *Colour'd* *Hair*. This *Yellow* or *Gold-Colour* seems the proper *Colour* of *Light*, a deeper of this is *Orange-Colour*, a deeper yet *Red*, yet more intense will be *Purple*, and so 'till perfectly *Opake*, of a dark or dead *Colour*, as any may with Pleasure observe in the *Clouds* of a *Summer-Evening*, (if we shou'd ever happen to have any more *Fair Weather*.) Thus *Red* is next to *Yellow* in a Natural *Rain-bow*, and in the *Prism* too, unless We are mistaken — and Mr. *Boyl* himself asserts in his *Book of Colours*, p. 289. that some sorts of *Red* seem to be little else than heighten'd *Yellow*, and *Yellow* but a diluted *Red*: Add to this what any Man's common *Observation* furnishes him with, and which We think comes very near the present Case, that the *Light of the Sun*, when it shines thro' the *Smoke* into the *Tops of Chimneys*, appears very *Red*: Thus the appearing *Redness* of the *Moon* is only owing to the *Vapours* which fill the *Air* thro' which the *Yellow Species* are transmitted, and by casting the different *Colours* of a *Prism* one upon another, the same may We doubt not be effected: Which *Redness* may not appear thro' the *Telescope* for much the same Reasons that it appears not of the same *Bulk*, because the *Species* are transmitted more direct, without so much *Refraction*, or at least may be uniting'd, or *New ting'd* in the *Glasses*.

Thus far then We are advanc'd, and think We may have given a tolerable Account of the propos'd *Phænomena*, but the following We must own have more difficulty, which however We'll guess at, and leave others to reject or embrace our *Thoughts* according as they like 'em, not having our selves the Advantage of very good *Telescopes* for making *Observations*.

The Question remaining is — Why the *Moon* looks large and reddish in a *Telescope*, when near the *Mid-Heaven*? First, for the *Redness*, This in our *Observations* has appear'd most remarkable near the indented *Edges* of the *Half* or *Quarter Moon*, not that 'tis only *Red*, for it rather appear'd of all *Colours*, *Purple*, *Red*, *Blewish Green*, *Silver*, the most like *Mother-of-Pearl*, of any thing We can compare't to. We must further Premise, that different *Positions* alter the *Refraction*, as Mr. *Boyl* *Observes*, and *Proves* from the common Instance of *Motes* in the *Sun*, which if We look upon 'em one way are hardly of any *Colour*, if another, they appear very luminous and glorious — We may add, very like the *Moon* it self as We have describ'd it, *Green*, *Red*, *Gold-colour'd*, &c. supposing then the *Surface* of the *Moon* unequal, as none deny, it may seem that where these *Colours* appear, there are some *Mountains* or *Inequalities* whereon the *Sun's Rays* are terminated, and reflect the *Light* in a different manner from the other parts of the *Moon*: Or the *Shades* of these *Mountains* might turn the *Yellow* darker, and make it *Red*, as Mr. *Boyl's* Experiment of the *Carrots* and *Velvet*, the *Carrots* having a visibly deeper, darker, more reddish *Colour*, when the *Points* obverted to the *Eye*, and drinking in the *Light* — but the mischief is, these *Mountains* must cast their shadow backward, from our sight, and therefore some may think this *Redness* rather comes from the *Shades* of some vast *Pits* or *Valleys*: However We rather still incline to the *Mountains*, because on our *Earth*, when the *Sun's* *Reflection* is seen at a distance against *High Mountains*, especially when near setting, it appears *Purple* and *Red*, whereas the *Plains* between are *Yellow*, which *Places* may seem to the *Man* in the *Moon* just as his *Country* does to *us*. This for the *Redness*, the *Largeness* is still more difficult, tho' it seems owing to the *Glasses*; for if we look either on *Moon* or *Sun* thro' a *Pin-hole*, they are little enough; but still why they shou'd not appear as large at least, when near the *Horizon*, We'll thank him that can send us any probable Reason.

Quest. 4. A Marriage is much desir'd between an Aunt and her Nephew, Viz. Her Husband's Sister's Son; they are prompted to it not only by mutual Affections, but by the Convenience of many Advantages of the Match, being Advis'd by some as to the Agreeableness, and Dissuaded by others as to the Unlawfulness: They earnestly desire your speedy Determination, Whether such a thing may be done without Sin?

Ans. We think it Unlawful, from *Levit. 20. 20.* where the *Uncle's Wife* is expressly forbidden, and sure the *Mother's Brother's Wife* is the *Uncle's Wife*. Consult some former Questions of ours of the same Nature (to which our *Indexes* will direct you) for further satisfaction.

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* * The Compleat Library for March. Price Six Pence. that for April is now in the Press.

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London, Printed for Tho. Cockerill at the three Leggs in the Poultry, over against the Stocks-Market. 1693.

IN Grays-Inn-lane in Plow-yard, the third Door, lives Dr. Thomas Kirlew, a Collegiate Physician, and Sworn Physician in Ordinary to King Charles the Second, until his death; who with a Drink and Pill (hindring no Business) undertakes to Cure any Ulcers, Sores, Swellings in the Nose, Face, or other parts; Scabs, Itch, Scurfs, Leprosies, and Venereal Disease, expecting nothing until the Cure be finished: Of the last he hath cured many hundreds in this City, many of them after fluxing, which carries the evil from the Lower Parts to the Head, and so destroys many. The Drink is 3 s. the Quart, the Pill 1 s. a Box, with Directions; a better Purger than which was never given, for they cleanse the Body of all Impurities, which are the causes of Dropsies, Gours, Scurvies, Stone or Gravel, Pains in the Head, and other parts. With another Drink at 1 s. 6 d. a Quart. He cures all Fevers and hot Distempers without Bleeding, except in few Bodies. He gives his Opinion to all that writes or comes for nothing.

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